IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of:	Docket No. 31508
EGAWA, KOHJI	
Serial No. :	Group Art Unit No.
Filed:	
CANCER CELL-SPECIFIC HLA-F ANTIGEN AND A DIAGNOSTIC METHOD OF CANCER BY USING THEREOF	Examiner:

Assistant Commissioner of Patents
Washington, D.C. 20231

Sir:

PRELIMINARY AMENDMENT

Entrance of the following preliminary amendment prior to examination on the merits is respectfully requested.

Claims:

Please cancel claims 1-13.

Please add the following claims:

14. A cancer cell-specific HLA-F antigen wherein said antigen comprises at least a part of the amino acid sequence described in SEQ ID No. 6 in the Sequence Listing.

15. A cancer cell-specific HLA-F antigen wherein said antigen comprises at least a part of the amino acid sequence described in SEQ ID No. 5 in the Sequence Listing.

16. The cancer cell-specific HLA-F antigen of claim 14, wherein said antigen is obtained by expressing a DNA as its entirety or a part of it described in a sequence selected from the group consisting of SEQ ID Nos. 1, 2, and 3.

17. The cancer cell-specific HLA-F antigen of claim 15, wherein said antigen is obtained by expressing a DNA as its entirety or a part of it described in a sequence selected from the group consisting of SEQ ID Nos. 1, 2, and 3.

18. A DNA coding for the cancer cell-specific HLA-F antigen of claim 14.

19. A DNA coding for the cancer cell-specific HLA-F antigen of claim 15.

20. A DNA coding for the cancer cell-specific HLA-F antigen of claim 16.

21. A method of preparing the cancer cell-specific HLA-F antigen of claim 14, comprising the steps of:

producing a fusion protein using cells transformed by the DNA containing the entirety or a part of a nucleotide sequence selected from the group consisting of SEQ ID Nos. 1, 2 and 3; and

treating the fusion protein with a protease.

22. A method of preparing the cancer cell-specific HLA-F antigen of claim 15, comprising the steps of:

producing a fusion protein using cells transformed by the DNA containing the entirety or a part of a nucleotide sequence selected from the group consisting of SEQ ID Nos. 1, 2 and 3; and

treating the fusion protein with a protease.

23. A method of preparing the cancer cell-specific HLA-F antigen of claim 16, comprising the steps of:

producing a fusion protein using cells transformed by the DNA containing the entirety or a part of a nucleotide sequence selected from the group consisting of SEQ ID Nos. 1, 2 and 3; and

treating the fusion protein with a protease.

24. The method of preparing the cancer cell-specific HLA-F antigen of claim 21, wherein said protease is Enterokinase.

25. The method of preparing the cancer cell-specific HLA-F antigen of claim 22, wherein said protease is Enterokinase.

26. The method of preparing the cancer cell-specific HLA-F antigen of claim 23, wherein said protease is Enterokinase.

27. The method of preparing the cancer cell-specific HLA-F antigen of claim 21, wherein said protease is Factor Xa.

28. The method of preparing the cancer cell-specific HLA-F antigen of claim 22, wherein said protease is Factor Xa.

29. The method of preparing the cancer cell-specific HLA-F antigen of claim 23, wherein said protease is Factor Xa.

30. A method of preparing the cancer cell-specific HLA-F antigen of claim 14, wherein said method further comprises a process of purification.

31. A method of preparing the cancer cell-specific HLA-F antigen of claim 15, wherein said method further comprises a process of purification.

32. A method of preparing the cancer cell-specific HLA-F antigen of claim 16, wherein said method further comprises a process of purification.

33. A method of diagnosing cancer comprising the step of detecting an HLA-F antibody in the body fluid of a subject by using a cancer cell-specific HLA-F antigen as its entirety or part of it.

34. A method of diagnosing cancer comprising the steps of:

competitively reacting a part of an immunological pair which can form an immune complex with a cancer cell-specific HLA-F antigen as its entirety or part of it, and an anti-HLA-F antibody in a body fluid of a subject; and

detecting an anti-HLA-F antibody in the body fluid of the individual.

35. The method of claim 33, wherein the body fluid is blood.

36. The method of claim 34, wherein the body fluid is blood.

37. A detector of cancer comprising an introducer to which body fluid of an individual is introduced and an immunoreactor containing the cancer cell-specific HLA-F antigen as its entirety or part of it.

38. A kit for detecting cancer comprising the detector of claim 37, and at least one reagent for detection.

Remarks:

Claims 1-13 have been cancelled. Claims 14-38 have been added and remain for consideration in this application, with claims 14, 15, 33, 34 and 37 being in independent format.

Any additional fee which is due in connection with this amendment should be applied against our Deposit Account No. 19-0522.

Respectfully submitted,

By

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ATTORNEYS FOR APPLICANT(S)

VERSION WITH MARKINGS TO SHOW CHANGES MADE

Claims 1-13 have been canceled. New claims 14-38 have been added.